

U.S. Application No.: 09/509,626  
AMENDMENT B

ATTORNEY DOCKET: 3926.004

**REMARKS**

Claims 1 and 9 are amended to recite that analog signal processing precedes digital signal processing. Claim 9 is amended to recite that one of the modulation types of radio standards is a CDMA encoded signal. Support for these amendments can be found in Figs. 2 and 3 (wherein filtering and amplification or demixing and amplification - i.e., analog processing - occurs prior to superposing) and the associated text, particularly at page 3, second full paragraph.

Further, new claim 10 is added as an independent directed to the embodiment wherein superposing occurs at a common intermediate frequency (as shown in Fig. 2). In order to accomplish this, the received signals of the different radio standards are separately mixed down to a common intermediate frequency via local oscillators L01 and L02 and, as desired, intermediate amplified via amplifiers G1 or G2, before they are superposed. Explicit support can be found in Fig. 2 and associated text.

Finally, the term "superimposing" has been corrected to the more conventional "superposing".

Entry is respectfully requested.

**Paragraphs 2 and 3 (anticipation)**

Turning to the Office Action, the Examiner has issued a new, non-final Office Action, rejecting claims 1-3, 8, and 9 under 35 U.S.C. §102(e) as being anticipated by US Patent

U.S. Application No.: 09/509,626  
AMENDMENT B

ATTORNEY DOCKET: 3926.004

6,236,862 (Erten et al).

In response, Applicants have more specifically tailored Claims 1 and 9 and added Claim 10 to focus on the distinguishing features of the present invention.

As discussed in the introductory portion of the specification, the present invention is directed toward improving the processing efficiency signals of various radio standards, and concerns for example a process in which the addition of a CDMA encoded signal and a hitherto conventional modulated signal (**analog** signals), preferably at intermediate frequencies (amended claim 9), leads to a simplification of the demands on the **analog-to-digital** converter and the intermediate frequency editing since before decorrelation the CDMA signal can be lowered than the background noise and is raised from the background noise ( $N_0$ ) only by subsequent decorrelation.

A particular advantage of the invention is comprised in that, in comparison to hitherto conventional systems, less hardware components are required. Thereby, A/D converters for mixers and filters can be omitted. The present claims thus clearly distinguish the invention from Erten et al.

Erten et al. teach superposing of signals in the transmission channel, whereby mixed receiving signals are produced, which are received by sensors/antennae, wherein the received and mixed signals are supplied to a separation algorithm, which selects the individual signals out of the received and mixed signals on the basis of the recognition of the position of the antennae and therewith the delays of the

individual signals and then sends these signals to a demodulator. The Examiner is referred to the title page, the Abstract and Figs. 1, 3 and 4 with the associated description.

Further, the radio receiver of Erten et al. is designed to receive radio frequencies of the same standard. It is not understood how Erten et al. could be modified for receiving and separating signals of different radio standards, as claimed for example in present claim 7.

In view of these significant differences, it is respectfully submitted that Erten et al. alone or in combination with secondary references does not teach or suggest the invention as claimed in present claims 1, 9 and 10.

Withdrawal of the rejection is respectfully requested.

**Paragraph 4-7 - Obviousness**

Claims 4-5 are rejected as being obvious over Ostman, et al. (US 6,069,923).

Referring to Claim 5, according to the Examiner, Ostman also teaches that for each modulation type, one filter 204a and 204b (Fig. 2a) and amplifier 202a and 202b (Fig. 2a) is employed. Applicants respectfully submit that these dependent claims are allowable by virtue of their dependence from allowable independent claims.

Further, regarding the limitations recited in Claims 4 and 5, Applicants point out that these are not obvious over the cited reference.

Ostmann et al exclusively teach the use of individual small band oscillators (202a and 202b) for mixing, and do not teach

U.S. Application No.: 09/509,626  
AMENDMENT B

ATTORNEY DOCKET: 3926.004

summing two small band oscillator signals in which the sum signal is used for mixing in a mixer. Ostmann alone or in combination with further references is not relevant to the present invention as claimed in claims 4 or 5.

Claim 6 is rejected under 35 U.S.C. §103(a) as being obvious over Erten in view of Krasner (WO 97/14056).

Applicants submit that the combination of Erten et al, and Krasner does not appear to teach or suggest the claimed features of claim 6. Further, claim 6 is patentable by virtue of it's dependency from allowable claim 1.

Claim 7 is rejected under 35 U.S.C. §103(a) as being obvious over Erten and Krasner in view of Kim (US Pat. No. 5,963,592).

Applicants submit that Claim 7 is patentable by virtue of its dependency from allowable Claim 1.

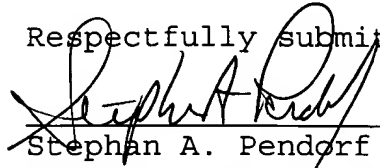
Finally, Applicants respectfully submit that the features of claim 2 are not anticipated by or obvious over any prior art reference(s), since the superpositioning of two or more different radio signals of **different radio standards and different frequency ranges and not only different frequencies of the same frequency range.** These radio frequencies are completely separate and have no overlap.

U.S. Application No.: 09/509,626  
AMENDMENT B

ATTORNEY DOCKET: 3926.004

Withdrawal of the rejection is respectfully requested.

Respectfully submitted,

  
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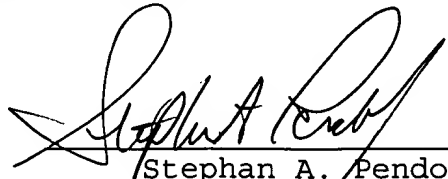
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Date: **August 7, 2003**

CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE

I hereby certify that the foregoing AMENDMENT B for U.S. Application No. 09/509,626 filed March 30, 2000, was deposited in first class U.S. mail, postage prepaid, addressed: Attn: Mail Stop, Commissioner for Patents, P.O. Box 1450, Alexandria, VA. 22313-1450 on **August 7, 2003**.

The Commissioner is hereby authorized to charge any additional fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account No. 16-0877.

  
Stephan A. Pendorf